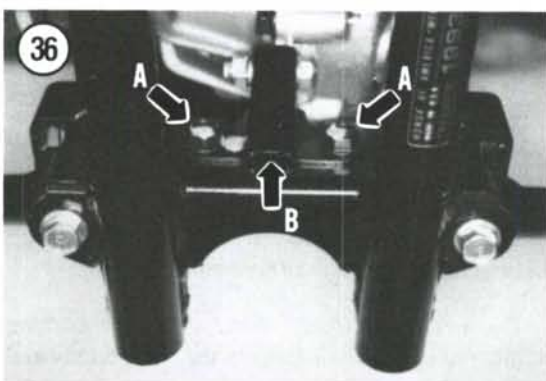


FRONT DIFFERENTIAL AND PROPELLER SHAFT

Removal/Installation

1. Drain the oil from the front differential as described in Chapter Three.
2. Remove the front fender as described in Chapter Thirteen.
3. Remove both front drive axles as described in this chapter.
4. Remove the bolts securing the propeller shaft cover (Figure 34) and remove the cover.
5. Remove the front differential front mounting bolt and nut (Figure 35).
6. Remove the bolts and nuts (A, Figure 36) securing the front differential mounting bracket and remove the mounting bracket (B, Figure 36).
7. Remove the front differential upper mounting bolt, nut and collar (Figure 37) and the lower rear mounting bolt and nut (Figure 38).
8. Carefully pull the front differential (A, Figure 39) forward and disengage the propeller shaft (B, Figure 39) from the front gearcase (C, Figure 39).



9. Remove the propeller shaft from the front differential case.

10. Remove the front differential case from the frame.

11. Inspect the propeller shaft and front differential as described in this chapter.

12. Installation is the reverse of these removal steps. Note the following:

- a. Apply molybdenum disulfide grease to the splines of each end of the propeller shaft and to the oil seal of the front differential.
- b. Correctly position the front differential in the chassis.
- c. Correctly position the propeller shaft with the "ENG" mark facing toward the front gear case and engine and install the opposite end into the front differential.
- d. Carefully push the front differential and propeller shaft toward the rear and insert the propeller shaft into the front gear case (**Figure 40**). Slightly rotate the propeller shaft in order to align the splines of both parts.
- e. Install the mounting bracket, bolts and nuts and tighten to the torque specifications listed in **Table 1**.
- f. Install the propeller shaft cover and tighten the bolts securely.
- g. Fill the front differential with the recommended type of oil as described in Chapter Three.

Disassembly/Inspection/Assembly

The front differential requires a considerable number of special Honda tools for disassembly and assembly. The price of all of these tools could be more than the cost of most repairs or seal replacement by a dealer.

Figure 41 shows all of the internal components of the final drive unit.

1. Check the front propeller shaft for wear or damage. Check the splines in each end. Replace the propeller shaft if necessary.

2. Check the entire front differential unit for oil leakage.

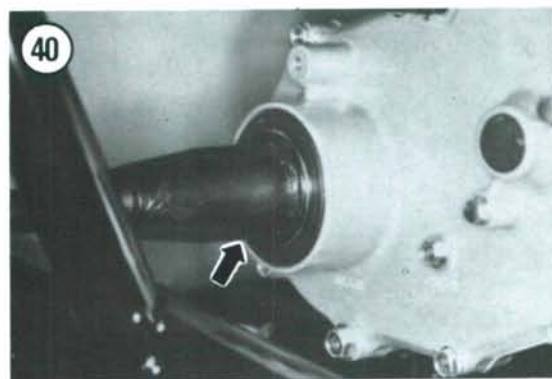
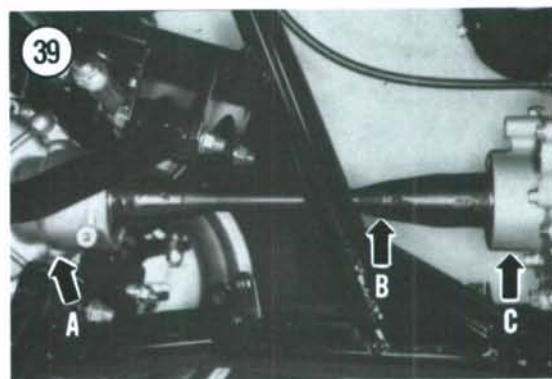
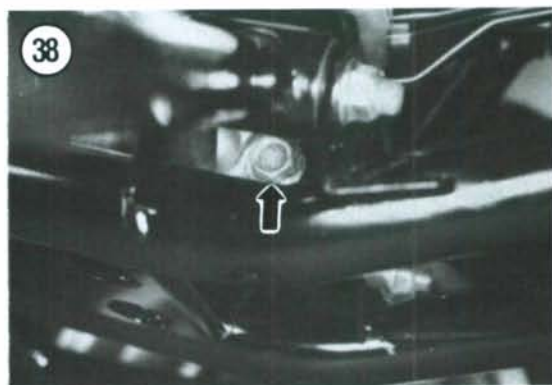
3. Inspect the splines of the pinion gear (**Figure 42**) for wear or damage. If damaged, repair should be entrusted to a dealer as disassembly is required.

NOTE

If these splines are damaged, also inspect the splines on the propeller shaft, it may require replacement also.

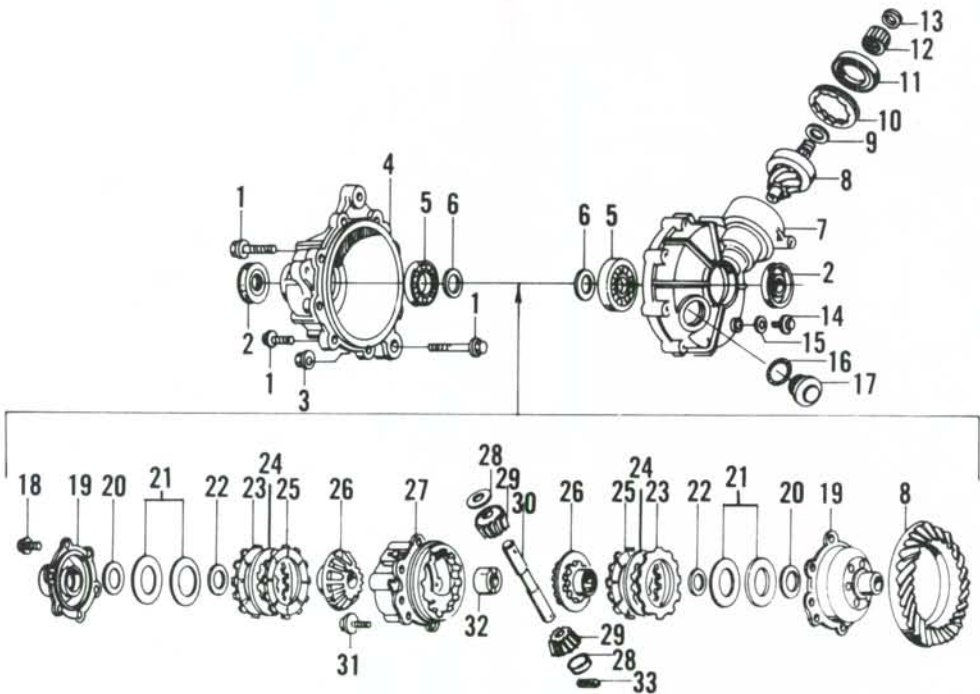
4. Inspect the grease seal on the right-hand side and the left-hand side for damage, replace if necessary.

5. Rotate the drive pinion (**Figure 42**) by hand. It should turn smoothly and quietly. If the rotation is rough or noisy, have the unit serviced by a Honda dealer.

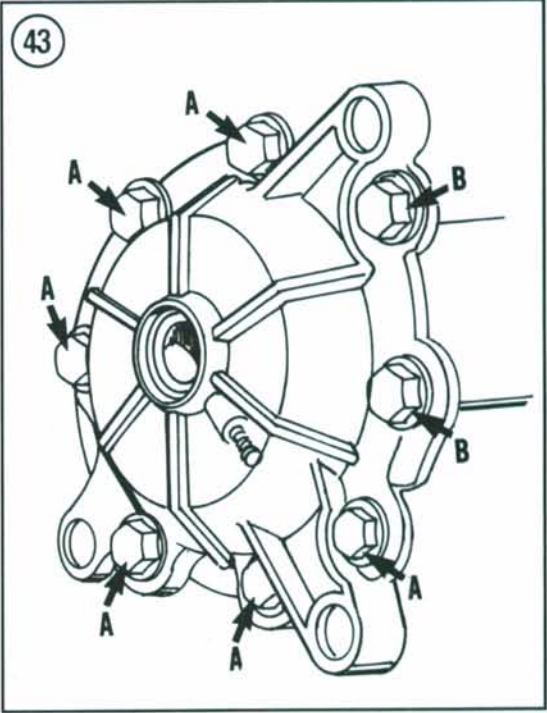
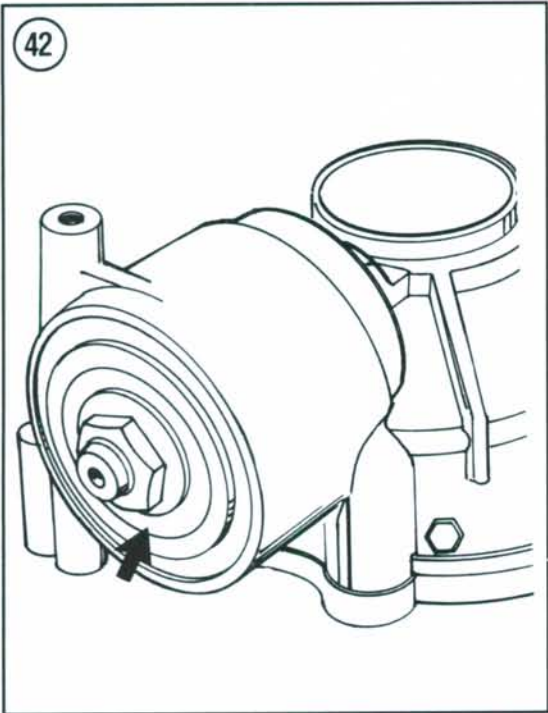


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FRONT DIFFERENTIAL



- | | | |
|-----------------------|----------------------|----------------------------------|
| 1. Bolt | 12. Pinion seal | 23. Differential clutch disc "B" |
| 2. Grease seal | 13. Nut | 24. Differential plate |
| 3. Nut | 14. Drain bolt | 25. Differential clutch disc "A" |
| 4. Differential cover | 15. Washer | 26. Side gear |
| 5. Bearing | 16. O-ring | 27. Differential housing |
| 6. Spacer | 17. Filler cap | 28. Washer |
| 7. Differential case | 18. Bolt | 29. Pinion gear |
| 8. Gear set | 19. Differential cap | 30. Pinion shaft |
| 9. Shim | 20. Spring seat | 31. Bolt |
| 10. Locknut | 21. Spring | 32. Collar |
| 11. Oil seal | 22. Washer | 33. Spring clip |

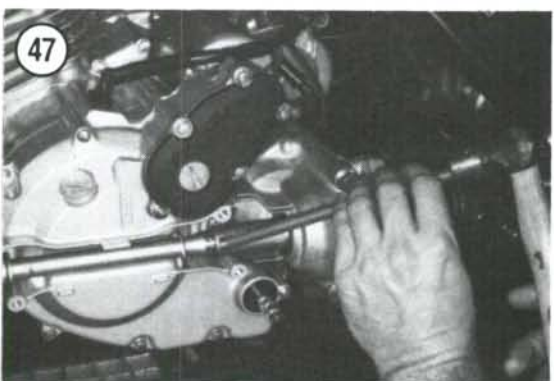
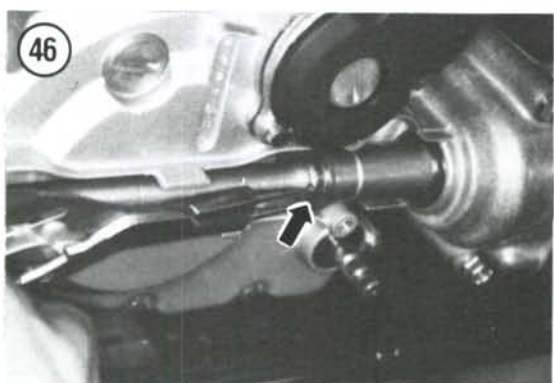
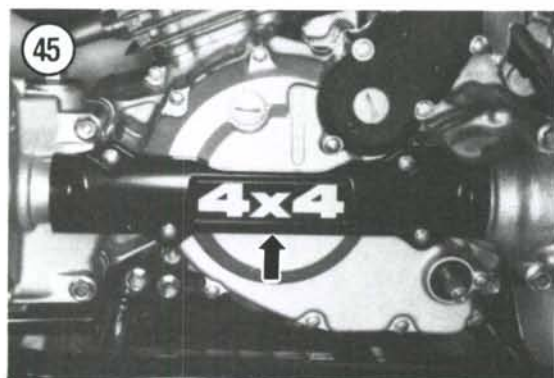


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DRIVE SHAFT



- 1. Joint
- 2. O-ring
- 3. Lockwasher
- 4. Circlip
- 5. Drive shaft
- 6. Lockwasher
- 7. Joint



6. Make sure the 8 mm bolts (A, **Figure 43**) and the 10 mm bolts (B, **Figure 43**) securing the gear case together are tight. Tighten, if necessary, to the torque specifications listed in **Table 1**.

SIDE DRIVE SHAFT

Removal/Installation

Refer to **Figure 44** for this procedure.

1. Remove the bolts securing the side drive shaft cover (**Figure 45**) and remove the cover.
2. Remove the circlip (**Figure 46**) from each end of the drive shaft.

NOTE

The side drive shaft is symmetrical and can be installed in either direction. If the vehicle is well run-in (high mileage) the splines may have taken a wear pattern. It is advisable to reinstall the side drive shaft and joints in the same location. Mark the front end of the shaft and the front joint with a marking pen or piece of masking tape so these 2 parts will be reinstalled in the same location.

3. Use a long drift or punch and hammer (**Figure 47**) and carefully tap the side drive shaft joints free from both the output shaft and the front gear case. Be sure to place the punch on the shoulder (A, **Figure 48**) to avoid damage to the side joint and its inner splines.
4. Remove the side drive shaft assembly (B, **Figure 48**).
5. Install by reversing these removal steps while noting the following:

- a. Apply molybdenum disulfide grease to the splines of each end of the side drive shaft and to the joints.
- b. Apply clean engine oil to the O-ring seals.
- c. Make sure the circlips are correctly seated (**Figure 49**) in their grooves in the side drive shaft.
- d. Make sure the side drive shaft (**Figure 50**) is correctly seated at both ends. Try to move it back and forth, there should be only slight movement.
- e. Install the side cover and tighten the bolts to the torque specification listed in **Table 1**.

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